

CLAIM AMENDMENTS

1 - 10. (canceled)

1 11. (currently amended) A method for selecting a node
2 from a plurality of content nodes in a data structure, each node
3 being linked to one or more respective ancestral nodes based on a
4 hierarchical relationship which defines the data structure, each
5 node comprising one or more keywords, one or more of the content
6 nodes being linked to common ancestral nodes, more than one content
7 node including at least one of the search words, the method
8 comprising:

9 searching a plurality of content nodes in a data
10 structure for one or more search keywords included in a voice
11 command;

12 if a particular content node is the only content node in
13 the data structure that includes all the search keywords, selecting
14 that content node; otherwise

15 if a particular content node is the only content node in
16 the data structure that in combination with its one or more
17 respective ancestral nodes includes all the search keywords,
18 selecting that content node; otherwise

19 if a particular content node is the only content node in
20 the data structure that includes at least one of the search
21 keywords, selecting that content node;

22 defining a selection set comprising all nodes in that
23 data structure that have at least one of the search words; and
24 removing from the selection set any ancestral nodes that
25 include at least one of the search keywords.

1 12. (original) The method of claim 11, wherein the
2 voice command further comprises one or more filler words, the
3 method further comprising:

4 filtering the filler words out of the voice command.

13. (canceled)

1 14. (currently amended) The method of claim [[13]] 11,
2 further comprising:

3 prompting a user to select from among the content nodes
4 in the selection set.

1 15. (currently amended) The method of claim [[13]] 11,
2 the method further comprising:

3 identifying a differentiating node in the data structure
4 for each content node in the selection set, wherein the
5 differentiating node for each node is not an ancestral node for
6 other nodes included in the selection set.

1 16. (original) The method of claim 15, further
2 comprising:

3 prompting a user to select a differentiating node from a
4 plurality of differentiating nodes for the content nodes included
5 in the selection set.

1 17. (original) The method of claim 16, further
2 comprising:

3 selecting the content node associated with the selected
4 differentiating node.

1 18. (original) The method of claim 11, wherein each
2 node in the data structure is associated with a node indicator that
3 identifies the search keywords included in the node.

1 19. (original) The method of claim 18, wherein each
2 node in the data structure is associated with an ancestral node
3 indicator that identifies the search keywords included in the one
4 or more respective ancestral nodes for the node.

1 20. (original) The method of claim 19, wherein the node
2 indicator and the ancestral node indicator are each represented by
3 a respective combination of digits, each digit corresponding with a
4 particular search keyword, number of the digits in each respective
5 combination being equal to number of the search keywords, each
6 digit indicating whether or not the node or the one or more

7 respective ancestral nodes for the node include a corresponding
8 search keyword.

9 21. (currently amended) A method of accessing content
10 stored in a data structure, the method comprising:

11 searching a plurality of content nodes arranged in a
12 hierarchical order in a data structure for one or more keywords, in
13 response to receiving a voice command including said one or more
14 keywords in a first order;

15 comparing a first node indicator value for a first node
16 with a second node indicator value for a second node, ~~wherein the~~
17 first node indicator being equal to the second node indicator, the
18 first node and the second node ~~include~~ including the highest number
19 of said one or more keywords, ~~and wherein the~~ respective node
20 indicator value for each node ~~represents~~ representing the number of
21 said one or more keywords included in each node in the first order;

22 providing content included in the first node, if the
23 first node indicator value is greater than the second node
24 indicator value; ~~[[and]]~~

25 providing content included the second node, if the first
26 node indicator value is less than the second node indicator value;
27 and

28 determining a first ancestral indicator value for the
29 first node representing a number of said one or more keywords
30 included in a first set of ancestral nodes related to the first
31 node in the first order; and

32 determining a second ancestral indicator value for the
33 second node representing a number of said one or more keywords
34 included in a second set of ancestral nodes related to the second
35 node in the first order.

1 22. (original) The method of claim 21, further
2 comprising:

3 providing content included in the first node, if the
4 first node is the only node comprising all of said one or more
5 keywords;

6 prompting a user to select between the first node and a
7 second node in the plurality of content nodes, if the second node
8 also comprises all said one or more keywords; and

9 providing content included in the first node or the
10 second node in response to the user selecting between the first
11 node and the second node.

23. (canceled)

1 24. (currently amended) The method of claim [[23]] 21,
2 further comprising:

3 comparing the first ancestral indicator value with the
4 second ancestral node indicator value;

5 providing content included in the first node, if the
6 first ancestral indicator value is greater than the second
7 ancestral node indicator value; and

8 providing content included in the second node, if the
9 first ancestral indicator value is less than the second ancestral
10 node indicator value.

1 25. (currently amended) The method of claim [[23]] 21,
2 further comprising:

3 calculating a first cumulative indicator value from the
4 first node indicator and the first ancestral indicator value, the
5 first cumulative indicator value representing number of said one or
6 more keywords included in the first node and the first set of
7 ancestral nodes, in the first order; and

8 calculating a second cumulative indicator from the second
9 node indicator and the second ancestral indicator, the second
10 cumulative indicator representing number of said one or more
11 keywords included in the second node and the second set of
12 ancestral nodes, in the first order.

1 26. (original) The method of claim 25, further
2 comprising:

3 providing content included in the first node, if the
4 first cumulative indicator value is greater than the second
5 cumulative indicator value; and

6 providing content included the second node, if the first
7 cumulative indicator value is less than the second cumulative
8 indicator value.

1 27. (original) The method of claim 25, further
2 comprising:

3 prompting a user to select between the first node and the
4 second node, if the second cumulative indicator value is equal to
5 the first cumulative indicator value; and

6 providing content included in a node selected by the
7 user, in response to the user selecting between the first node and
8 the second node.

1 28. (original) The method of claim 25, wherein the
2 first node indicator value is represented by a combination of
3 digits, each digit corresponding to a respective one of said one or
4 more keywords and whether or not the respective keyword is included
5 in the first node.

1 29. (original) The method of claim 28, wherein the
2 first ancestral indicator value is represented by a combination of
3 digits, each digit corresponding to a respective one of said one or
4 more keywords and whether or not the respective keyword is included
5 in the first set of ancestral nodes.

1 30. (original) The method of claim 29, wherein the
2 first node indicator value and the first ancestral indicator value
3 are represented by binary numbers, and wherein each digit in the
4 first cumulative indicator value is calculated by applying a
5 logical AND operation to each of the respective individual digits

6 in the first node indicator value and the first ancestral indicator
7 value.

1 31. (currently amended) A voice operated system for
2 accessing content accessible from one or more sources, the system
3 comprising:

4 a data structure implemented to provide access to content
5 included in a plurality of content nodes, each content node
6 associated with one or more ancestral nodes linked in an
7 arrangement that defines a hierarchy for the content;

8 a voice interface for searching the data structure for
9 one or more keywords included in a search-keyword-set and for
10 further providing content included in a content node associated
11 with at least one of said one or more keywords; and

12 a plurality of node indicators, each node indicator
13 provided for a respective content node and representing a
14 content-keyword-set that is a subset of the search keyword-set,
15 each content-keyword-set including one or more keywords related to
16 content associated with the respective content node;

17 wherein content associated with a particular content node is
18 provided, if the respective content-keyword-set for other content
19 nodes are subsets of the respective content-keyword-set for the
20 particular content node; and

21 a plurality of ancestral indicators, each ancestral
22 indicator provided for a respective content node and representing a
23 respective ancestral-keyword-set that is a subset of the

24 search-keyword-set, each ancestral-keyword-set including one or
25 more keywords associated with the respective ancestral nodes for
26 the respective ancestral indicator for each content node, the
27 ancestral indicator representing an ancestral keyword-set that is a
28 subset of the search-keyword-set and includes one or more keywords
29 associated with ancestral nodes of content node, the content
30 associated with a particular content node being provided if the
31 ancestral-keyword-sets for other content nodes are subsets of the
32 ancestral keyword-set for the particular content node.

1 32. (original) The system of claim 31, wherein the
2 content associated with a content node is provided, if the
3 respective node indicator for the content node is equivalent to the
4 search-keyword-set.

33. (canceled)

1 34. (currently amended) The system of claim ~~[[33]]~~ 31,
2 wherein a respective ancestral-keyword-set for each content node
3 further includes keywords included in the content-keyword-set for
4 the respective content node.

1 35. (original) The system of claim 31, wherein the
2 content-keyword-sets for all content nodes in the data structure
3 are not subsets of the content-keyword-set for the first content
4 node, the system further comprising:

5 an ancestral indicator for each content node, the
6 ancestral indicator representing an ancestral-keyword-set that is a
7 subset of the search-keyword-set and includes one or more keywords
8 associated with ancestral nodes of each content node;

9 a cumulative indicator for each node, the cumulative
10 indicator representing a cumulative-keyword-set derived from a
11 union between the content-keyword-set and the
12 ancestral-keyword-set;

13 wherein the content associated with a first content node is
14 provided, if the cumulative-keyword-sets for all other content
15 nodes in the data structure are subsets of the
16 cumulative-keyword-set for the first content node.

1 36. (original) The system of claim 35, wherein the
2 system prompts a user to select from among the first node and one
3 or more other nodes in the data structure, if the
4 cumulative-keyword-set for the first node is equivalent to the
5 cumulative-keyword set for the one or other more nodes.

1 37. (original) The system of claim 31, wherein the node
2 indicator is a binary number comprising one or more digits, each
3 digit corresponding to a keyword included in the
4 content-keyword-set.

1 38. (currently amended) The system of claim ~~[[33]]~~ 31,
2 wherein the ancestral indicator is a binary number comprising one
3 or more digits, each digit corresponding to a keyword included in
4 the ancestral-keyword-set.

1 39. (original) The system of claim 35, wherein the
2 cumulative indicator is a binary number comprising one or more
3 digits, each digit corresponding to a keyword included in the
4 cumulative-keyword-set.

1 40. (original) The system of claim 37, wherein length
2 of the binary number is equal to the number of keywords included in
3 the search-keyword-set, each digit in the binary number indicating
4 the presence or lack of presence of a corresponding keyword in the
5 content-keyword-set.

1 41. (original) The system of claim 38, wherein length
2 of the binary number is equal to the number of keywords included in
3 the search-keyword-set, each digit in the binary number indicating
4 the presence or lack of presence of a corresponding keyword in the
5 ancestral-keyword-set.

1 42. (original) The system of claim 39, wherein length
2 of the binary number is equal to the number of keywords included in
3 the search-keyword-set, each digit in the binary number indicating
4 the presence or lack of presence of a corresponding keyword in the
5 cumulative-keyword-set.

43 - 57 (canceled)